

Remarks

Reconsideration and reexamination of the above-identified patent application, as amended, are respectfully requested. Claims 1-20 are pending in this application upon entry of this Amendment. In this Amendment, the Applicant has amended claims 18-20. No claims have been cancelled or added in this Amendment. Of the pending claims, claims 1, 11, and 18-19 are independent claims.

Claim Rejections - 35 U.S.C. § 112, 1st Paragraph

In the Office Action mailed October 5, 2005, the Examiner rejected claims 1, 11, and 18-20 under 35 U.S.C. § 112, 1st paragraph, as failing to comply with the enablement requirement.

1. Independent Claim 1

Regarding independent claim 1, the Examiner posited that the terms “foreign network”, “network setting”, and “intercepting packets transmitted from the user [device] and the network” lack support in the written description. The Applicant notes that claim 1 recites “foreign device” as opposed to “foreign network”; and recites “intercepting packets transmitted by the foreign device” as opposed to “intercepting packets transmitted by the foreign network”. The Applicant respectfully submits that the written description provides support for all of the limitations set forth in claim 1 for the following reasons below.

Independent claim 1 recites a method of connecting a “foreign device” and a user device. The specification describes, for example, the foreign device as being a “destination computer” (page 1, line 21); “devices on the network” (page 1, line 21); a “destination host” (page 1, line 23); a “computer” (page 1, line 24); “a device on the network to which the computer [i.e., user device] is being connected” (page 2, lines 9-10); “any location on the internet or other digital data communication system” (page 2, lines 14-17); a “communication system” (page 2, line 21); a “communications device 14” (FIG. 1; page 8,

lines 15-17; page 8, line 22 through page 9, line 2); “switches, bridges, etc.” (page 9, line 1); “any communications device 14” (page 9, line 14); “host computers” and “other network devices” (page 10, lines 9-10); “network devices” (page 10, line 17); “computing hosts and communication devices” (page 12, lines 8-9); “corresponding host” (FIG. 2); “a network device, such as a switch” (page 17, line 21); “network 14” (FIGS. 12A-E; page 18, lines 3-9); “network device” (page 19, line 17); “network 14” (page 21, line 23 through page 22, line 6); a “network 14” (FIGS. 9A-B; pages 22-24). As such, a user device and another “device” are to be connected and the specification supports the other “device” as encompassing various entities such as a destination computer, a host, a communications device, a network, etc. Independent claim 1 recites the other “device” as being a “foreign device” in order for this device to be readily distinguishable from the “user device”. Accordingly, the written disclosure supports the term “foreign device”.

Independent claim 1 recites “network settings of the user device” and “network settings of the second local area network”. The specification describes, for example, that the user device is “configured to be connected to a local home network” (page 2, lines 13-15); is “initially configured to communicate with a particular gateway or other home device at its base location” (page 9, lines 18-19); has a “configuration” (page 11, line 12); has “host configuration information, such as IP number” (page 12, lines 18-19); has “settings” (FIG. 3 - “host device’s settings”); has settings which may require “reconfiguration (e.g., IP address configuration, gateway or next hop router address, netmask, link level parameters, and security permissions)” (page 13, lines 9-10); has to be “reconfigured every time the communication environment changes” (page 13, line 13); has a “configuration” or a “host configuration” which the Nomadic Router of the present invention learns by determining “the settings of mobile hosts [i.e., the user devices] which are subsequently connected to the network” or by previously learning “the host [i.e., the user device] settings” (page 19, lines 1-20 and page 19, line 15 through page 20, line 23); has a “configuration” which is learned by the Nomadic Router (page 21, line 23); has a “configuration” which it uses (page 21, line 26); generates network packets using a “current configuration” (page 22, lines 11-13); and has a MAC address which is reconfigured (page 22, line 24). As such, the user device has a configuration

of “settings” for a network. Accordingly, the written disclosure supports the term “network settings of the user device”.

The specification describes, for example, that a network (such as a second local area network) has a “configuration” (page 2, lines 3-10; page 5, line 8; page 5, line 27; page 11, line 13; page 16, line 20; page 20, line 24 through page 22, line 6) which the Nomadic Router of the present invention learns by determining “the settings” of the network (page 19, lines 1-14). As such, the second local area network has a configuration of “settings”. Accordingly, the written disclosure supports the term “network settings of the second local area network”.

Independent claim 1 recites “intercepting packets transmitted by the user device” and “intercepting packets transmitted by the foreign device”. The specification describes, for example, that the Nomadic Router of the present invention “automatically and transparently reconfigures packets sent to/from the terminal [i.e., the user device] for its new location by processing outgoing and incoming data” (page 2, lines 17-19); “intercepts the message [i.e., packets]” transmitted by a user device (page 2, lines 20-25); “intercepts packets from the host [i.e., the user device]” (page 4, lines 27-29); pretends to be the router for which the host is configured and pretends to be the host with which the router expects to communicate (page 5, lines 1-3); “translates the data allowing the host [i.e., user device] to think that it is communicating with its home router” (page 5, lines 9-10); “will automatically intercept and translate packets” communicated between a host computer (i.e., a user device) and a network (page 11, lines 8-21); “translates[s] packets transmitted/received by the host computer [i.e., the user device]” such that “for outbound traffic from host computer 12 to network 14, the translation function changes the content of the packet . . . causing all packets sent out to network 14 to be directed back to nomadic router 10 rather than to host computer 12” and such that “inbound traffic from network 14 arriving at nomadic router 10 (which is really for host computer 12) [being] passed through the translation function so host computer 12 thinks that the replies were sent directly to it” (page 21, line 23 through page 22, line 6); (FIGS. 9A-B and related description on pages 22-24 in which FIGS. 9A-B illustrate the Nomadic Router

interposed between the host computer and the network and intercepting communications therebetween; see FIG. 1 and its related description illustrating the Nomadic Router interposed between the host device and a communications device which can be part of a network). As such, the written disclosure supports the terms “intercepting packets transmitted by the user device” and “intercepting packets transmitted by the foreign device”.

In view of the foregoing, the Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 1 under 35 U.S.C. § 112, 1st paragraph.

2. Independent Claim 11

Regarding independent claim 11, the Examiner posited that the steps of intercepting data, modifying the data, and transmitting the modified data along with the terms “private IP” and “incompatible private IP” lack support in the written description.

Independent claim 11 recites “intercepting data transmitted by the user device”, “modifying the data”, and “transmitting the modified data”. The specification describes, for example, that the Nomadic Router of the present invention “automatically and transparently reconfigures packets sent to/from the terminal [i.e., the user device] for its new location by processing outgoing and incoming data” (page 2, lines 17-19); “intercepts the message [i.e., packets]” transmitted by a user device (page 2, lines 20-25); “intercepts packets from the host [i.e., the user device]” (page 4, lines 27-29); pretends to be the router for which the host is configured and pretends to be the host with which the router expects to communicate (page 5, lines 1-3); “translates the data allowing the host [i.e., user device] to think that it is communicating with its home router” (page 5, lines 9-10); “will automatically intercept and translate packets” communicated between a host computer (i.e., a user device) and a network (page 11, lines 8-21); “translates[s] packets transmitted/received by the host computer [i.e., the user device]” such that “for outbound traffic from host computer 12 to network 14, the translation function changes the content of the packet . . . causing all packets sent out to network 14 to be directed back to nomadic router 10 rather than to host computer 12” and such that “inbound traffic from network 14 arriving at nomadic router 10 (which is really for host

computer 12) [being] passed through the translation function so host computer 12 thinks that the replies were sent directly to it" (page 21, line 23 through page 22, line 6); (FIGS. 9A-B and related description on pages 22-24 in which FIGS. 9A-B illustrate the Nomadic Router interposed between the host computer and the network and intercepting, modifying, and transmitting communications therebetween; FIG. 1 and its related description illustrating the Nomadic Router interposed between the host device and a communications device which can be part of a network). As such, the written disclosure supports the terms "intercepting data transmitted by the user device", "modifying the data", and "transmitting the modified data".

Independent claim 11 recites the terms "private IP addresses" and "incompatible private IP address". Particularly, independent claim 11 recites that data transmitted by a user device has "an incompatible private IP address" and that the data is modified using "a private IP address compatible with the network private IP addresses". The specification describes, for example, that a host (i.e., a user device, a terminal) has an "address" and the Nomadic Router of the present invention translates (i.e., "modifies") this address with a router address and that the Nomadic Router "appears as the terminal [i.e., user device] to the communication system [i.e., the network]" (page 2, lines 20-29) such that "mobile virtual private networking" is enabled (page 3, lines 1-7); the Nomadic Router converts the address associated with a physical location of the user device to "a unique communication address for the user such as an internet address, such that the terminal (i.e., the user device) performs communications originating from the communication address regardless of the physical location of the terminal" (page 3, lines 13-16); that the IP address of the user device has to be reconfigured each time the user device moves to a new network (page 3, lines 27-29); the Nomadic Router provides "a permanent IP address" to the user device (page 4, lines 1-2); the Nomadic Router includes a first module for storing a digital communication address of a user of a user device, a second module for detecting a data communication network location to which the user device is connected, and a fourth module for establishing data communication between the user device and the network such that the communication address of the data communication network location is automatically converted to the communication address of the user (page 4, lines 13-22); the user device has a "permanent internet address which conveniently need not be changed

in accordance with the present invention” (page 9, lines 16-17); the user device has a “home internet or IP address” (page 9, lines 25-26); the Nomadic Router “provides the mapping between the location based IP address used in the internet today and the permanent user based address housed in the CPU in the [user] device 12” (page 12, lines 10-14; and FIG. 2 - the “IP Mapping” element); the Nomadic Router has a protocol for specifying the “mapping between permanent and temporary IP addresses” (page 12, lines 15-21); the Nomadic Router translates the content of a packet transmitted by the user device to “change the source address to match that of the nomadic router’s address instead of the host computer’s [i.e., the user device’s] address” (page 22, line 28 through page 23, line 1; see also FIGS. 9A and 9B and related description on page 22, line 7 through page 23, line 24). As such, the written disclosure supports the terms “private IP addresses” and “incompatible private IP address”.

In view of the foregoing, the Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 11 under 35 U.S.C. § 112, 1st paragraph.

3. Independent Claim 18

Regarding independent claim 18, the Examiner posited that the steps of intercepting packets, transmitting a DHCP request, modifying the packets, and transmitting modified packets along with the terms “static IP address” and “available network address” lack support in the written description.

Amended independent claim 18 recites “intercepting packets transmitted by the user device”, “modifying the packets transmitted by the user device”, and “transmitting the modified packets”. The specification describes, for example, that the Nomadic Router of the present invention “automatically and transparently reconfigures packets sent to/from the terminal [i.e., the user device] for its new location by processing outgoing and incoming data” (page 2, lines 17-19); “intercepts the message [i.e., packets]” transmitted by a user device (page 2, lines 20-25); “intercepts packets from the host [i.e., the user device]” (page 4, lines 27-29); pretends to be the router for which the host is configured and pretends to be the host with which the router expects to communicate (page 5, lines 1-3); “translates the data allowing

the host [i.e., user device] to think that it is communicating with its home router" (page 5, lines 9-10); "will automatically intercept and translate packets" communicated between a host computer (i.e., a user device) and a network (page 11, lines 8-21); "translates[s] packets transmitted/received by the host computer [i.e., the user device]" such that "for outbound traffic from host computer 12 to network 14, the translation function changes the content of the packet . . . causing all packets sent out to network 14 to be directed back to nomadic router 10 rather than to host computer 12" and such that "inbound traffic from network 14 arriving at nomadic router 10 (which is really for host computer 12) [being] passed through the translation function so host computer 12 thinks that the replies were sent directly to it" (page 21, line 23 through page 22, line 6); (FIGS. 9A-B and related description on pages 22-24 in which FIGS. 9A-B illustrate the Nomadic Router interposed between the host computer and the network and intercepting, modifying, and transmitting communications therebetween; FIG. 1 and its related description illustrating the Nomadic Router interposed between the host device and a communications device which can be part of a network). As such, the written disclosure supports the terms "intercepting packets transmitted by the user device", "modifying the packets transmitted by the user device", and "transmitting the modified packets".

Amended independent claim 18 recites "transmitting a DHCP request on the network to determine at least one available network IP address". The specification describes, for example, that the Nomadic Router of the present invention is able to learn the "configuration" of the network by being able to learn the "settings" of the network (page 19, lines 1-14); and that the Nomadic Router learns about the network to which it is connected by "broadcast[ing] a DHCP request to obtain configuration information for that network" with the end result of learning how the network is configured being that the Nomadic Router "is able to determine the IP addresses used on the current network" and "will elect to use an unused [i.e., an available] IP address" (page 20, line 24 through page 21, line 22). As such, the written disclosure supports the term "transmitting a DHCP request on the network to determine at least one available network IP address".

Amended independent claim 18 recites “a user device configured with a static IP address”. The specification describes, for example, that the user device is “configured to be connected to a local home network” (page 2, lines 13-15); is “initially configured to communicate with a particular gateway or other home device at its base location” (page 9, lines 18-19); has an “IP address” corresponding to a configuration of the user device (page 3, lines 27-29); has a “permanent internet address which conveniently need not be changed in accordance with the present invention” (page 9, lines 16-17); has a “home internet or IP address” (page 9, lines 25-26); has “host configuration information, such as IP number” (page 12, lines 18-19); and that the Nomadic Router of the present invention “provides the mapping between the location based IP address used in the internet today and the permanent user based address housed in the CPU in the [user] device 12” (page 12, lines 10-14). As such, the written disclosure supports the term “a user device with a static IP address”.

Amended independent claim 18 recites “intercepting packets transmitted by the user device to determine the static IP address”. The specification describes, for example, that the Nomadic Router of the present invention “intercepts the message [i.e., packets]” transmitted by a user device (page 2, lines 20-25); “intercepts packets from the host [i.e., the user device]” (page 4, lines 27-29); pretends to be the router for which the host is configured and pretends to be the host with which the router expects to communicate (page 5, lines 1-3); “will automatically intercept and translate packets” communicated between a host computer (i.e., a user device) and a network (page 11, lines 8-21); (FIGS. 9A-B and related description on pages 22-24 in which FIGS. 9A-B illustrate the Nomadic Router interposed between the host computer and the network and intercepting communications therebetween). As such, the written disclosure supports the term “intercepting packets transmitted by the user device”. The specification further describes, for example, that the Nomadic Router of the present invention “is able to learn the host computer 12 [i.e., the user device] configuration by looking at the content of the packets sent from the host computer 12” (page 19, lines 1-20). As the user device has an “IP address” corresponding its configuration (page 3, lines 27-29) and as the IP address is a “permanent” internet address which conveniently need not be changed in accordance with the present invention” (page 9, lines 16-17), the Nomadic Router is able to

determine the permanent (i.e., “static”) address of the user device as a result of having learned the configuration of the user device. As such, the written disclosure supports the term “intercepting packets transmitted by the user device to determine the static IP address”.

In view of the foregoing, the Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 18 under 35 U.S.C. § 112, 1st paragraph.

4. Independent Claim 19 and its Dependent Claim 20

Regarding independent claim 19 and its dependent claim 20, the Examiner posited that the steps of automatically determining network settings, intercepting user device messages, and modifying incorrectly configured messages along with the terms “foreign network” and “incorrectly configured messages” lack support in the written description.

Amended independent claim 19 recites a method for providing connectivity to a “first network” for a user device. The specification describes, for example, that the Nomadic Router of the present invention provides a translation between the user device configuration and the configuration of a first network such as a remote or foreign network to which it is attached (page 11, lines 12-14); the Nomadic Router is used an interface between a user device and a router 26 on a first network such as a foreign network (page 18, lines 13-22); the Nomadic Router learns about the configuration of a first network such as a remote/foreign network to which the user device is “subsequently connected” (page 19, lines 1-14). As such, the written disclosure supports the term “first network”.

Amended independent claim 19 recites “automatically determining network settings of the first network based on addresses contained in messages transmitted over the first network”. The specification describes, for example, that the Nomadic Router of the present invention is able to learn the “configuration” of a first network such as a remote/foreign network by being able to learn “the settings of the remote/foreign network” (page 19, lines 1-14); and that the Nomadic Router learns about the settings of the first network by receiving messages transmitted over the first network and then determining the determining the addresses

contained in the messages (page 20, line 24 through page 21, line 22). As such, the written disclosure supports the term “automatically determining network settings of the first network based on addresses contained in messages transmitted over the first network”.

Amended independent claim 19 recites “intercepting user device messages transmitted over the first network without regard to message destination addresses”. The specification describes, for example, that the Nomadic Router of the present invention “automatically and transparently reconfigures packets sent to/from the terminal [i.e., the user device] for its new location by processing outgoing and incoming data” (page 2, lines 17-19); “intercepts the message [i.e., packets]” transmitted by a user device “whether or not the message is addressed to the nomadic router” (page 2, lines 20-25); “intercepts packets from the host [i.e., the user device]” (page 4, lines 27-29); pretends to be the router for which the host is configured and pretends to be the host with which the router expects to communicate (page 5, lines 1-3); “translates the data allowing the host [i.e., user device] to think that it is communicating with its home router” (page 5, lines 9-10); “will automatically intercept and translate packets” communicated between a host computer (i.e., a user device) and a network “without [the] packets being addressed to [nomadic] router 10” (page 11, lines 8-21); “translates[s] packets transmitted/received by the host computer [i.e., the user device]” such that “for outbound traffic from host computer 12 to network 14, the translation function changes the content of the packet . . . causing all packets sent out to network 14 to be directed back to nomadic router 10 rather than to host computer 12” and such that “inbound traffic from network 14 arriving at nomadic router 10 (which is really for host computer 12) [being] passed through the translation function so host computer 12 thinks that the replies were sent directly to it” (page 21, line 23 through page 22, line 6); (FIGS. 9A-B and related description on pages 22-24 in which FIGS. 9A-B illustrate the Nomadic Router interposed between a host computer and a network and intercepting communications therebetween; see FIG. 1 and its related description illustrating the Nomadic Router interposed between the host device and a communications device which can be part of the network). The specification further describes, for example, that the Nomadic Router can be placed in a “promiscuous mode” to accept all packets being transmitted from either the user device or the network and not just “ones being

broadcast or addressed specifically to it” nor “just ones addressed to the nomadic router” (page 20, lines 6-15; page 21, lines 6-14). As such, the written disclosure supports the term “intercepting user device messages transmitted over the first network without regard to message destination addresses”.

Amended independent claim 19 recites “incorrectly configured messages transmitted by the user device”. The specification describes, for example, that a user device is configured to be connected to a local home network such that the user device transmits messages based on its configuration (page 2, lines 15-24); the user device may not be able to communicate with a new network to which the user device is connected when the user device is “configured incorrectly” for the network (page 1, line 25 through page 2, line 2); and the Nomadic Router of the present invention translates the messages transmitted by the user device “to match the network’s configuration” (page 16, lines 20-21). As such, the written disclosure supports the term “incorrectly configured messages transmitted by the user device”. Amended independent claim 19 recites “modifying incorrectly configured messages transmitted by the user device based on the network settings of the first network, wherein modifying incorrectly configured messages transmitted by the user device includes substituting the permanent address of these messages with a router address as the source address, wherein the router address is an address recognized by the foreign network”. The specification provides disclosure for this term, for example, at page 2, lines 1-29; page 5, lines 1-12 and lines 21-27; page 9, lines 16-22; page 11, lines 7-21; page 16, lines 20-21; page 19, line 1 through page 21, line 22; page 21, line 23 through page 24, line 6; and FIGS. 9A-B).

To the extent that the Applicant has not pointed out support in the specification for claim 20, the specification describes the features set forth in claim 20 on page 19, line 1 through page 20, line 22.

In view of the foregoing, the Applicant respectfully requests reconsideration and withdrawal of the rejection of independent claim 19 and its dependent claim 20 under 35 U.S.C. § 112, 1st paragraph.

Claim Rejections - 35 U.S.C. § 112, 2nd Paragraph

The Examiner rejected claims 1-20 under 35 U.S.C. § 112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicant regards as the invention.

1. Independent Claim 1 and its Dependent Claims 2-10

Regarding independent claim 1, the Examiner posited that it is not clear what is meant by the terms “foreign network”, “network setting”, and “intercepting packets transmitted from the user and the network”. Again, the Applicant notes that independent claim 1 recites “foreign device” as opposed to “foreign network” and recites “intercepting packets transmitted from the foreign device” as opposed to “intercepting packets transmitted from the network”. The Applicant directs the Examiner’s attention to the Applicant’s remarks regarding the 35 U.S.C. § 112, 1st paragraph, rejection of independent claim 1. Notwithstanding these remarks, the Applicant believes that it is clear as to what is meant by the terms recited in independent claim 1. Claims 2-10 depend from independent claim 1 and include the limitations therein. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection to claims 1-10 under 35 U.S.C. § 112, 2nd paragraph.

2. Independent Claim 11 and its Dependent Claims 12-17

Regarding independent claim 11, the Examiner posited that it is not clear what is meant by the terms “private IP” and “incompatible private IP”. The Applicant directs the Examiner’s attention to the Applicant’s remarks regarding the 35 U.S.C. § 112, 1st paragraph, rejection of independent claim 11. Notwithstanding these remarks, the Applicant believes that it is clear as to what is meant by the terms recited in independent claim 11. Claims 12-17 depend from independent claim 11 and include the limitations therein. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection to claims 11-17 under 35 U.S.C. § 112, 2nd paragraph.

3. Independent Claim 18

Regarding independent claim 18, the Examiner posited that it is not clear what is meant by the terms “static IP addresses” and “available network address”. The Applicant directs the Examiner’s attention to the Applicant’s remarks regarding the 35 U.S.C. § 112, 1st paragraph, rejection of independent claim 18. Notwithstanding these remarks, the Applicant believes that it is clear as to what is meant by the terms recited in independent claim 18. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection to claim 18 under 35 U.S.C. § 112, 2nd paragraph.

4. Independent Claim 19 and its Dependent Claim 20

Regarding independent claim 19 and its dependent claim 20, the Examiner posited that it is not clear what is meant by the terms “foreign network” and “incorrectly configured messages”. The Applicant directs the Examiner’s attention to the Applicant’s remarks regarding the 35 U.S.C. § 112, 1st paragraph, rejection of independent claim 19 and its dependent claim 20. Notwithstanding these remarks, the Applicant believes that it is clear as to what is meant by the terms recited in claims 19-20, as amended. Accordingly, the Applicant respectfully requests reconsideration and withdrawal of the rejection to claims 19-20, as amended, under 35 U.S.C. § 112, 2nd paragraph.

CONCLUSION

In summary, claims 1-20, as amended, meet the substantive requirements for patentability. The case is in appropriate condition for allowance. Accordingly, such action is respectfully requested.

If a telephone or video conference would expedite allowance or resolve any further questions, such a conference is invited at the convenience of the Examiner.

Respectfully submitted,

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